

What is claimed is:

1. A composition comprising

One or more corticosteroids;

Two or more penetration enhancers; and

One or more of the group consisting of solvents and emulsifiers,
wherein the penetration enhancers are present in a ratio to a total of the penetration
enhancers, and solvents and emulsifiers of at least about 0.70.

Synonym

2. The composition of claim 1 wherein the corticosteroid comprises a fluorinated corticosteroid.
3. The composition of claim 1 wherein the corticosteroid comprises fluocinonide.
4. The composition of claim 1 wherein the corticosteroid comprises fluocinolone acetonide.
5. The composition of claim 1, 2, 3 or 4 wherein the corticosteroid is present at about 0.10%.
6. The composition of claim 1, 2, 3 or 4 wherein the corticosteroid is present at at least about 0.50%.
7. The composition of claim 1, 2, 3 or 4 wherein the corticosteroid is present at at least about 0.25%.
8. The composition of claim 1, 2, 3 or 4 wherein the penetration enhancers comprise two or more of the group consisting of propylene glycol, diisopropyl adipate, dimethyl isosorbide, 1,2,6 hexanetriol, and benzyl alcohol.

9. The composition of claim 1, 2, 3 or 4 wherein the penetration enhancers comprise two or more of the group consisting of propylene glycol, diisopropyl adipate and dimethyl isosorbide.
10. The composition of claim 1, 2, 3, or 4 wherein one penetration enhancer comprises propylene glycol.
11. The composition of claim 1 wherein the ratio is at least about 0.80.
12. The composition of claim 1 wherein the ratio is at least about 0.90.
13. The composition of claim 1 wherein the ratio is at least about 0.95.
14. The composition of claim 1 wherein the solvents and emulsifiers comprise one or more of the group consisting of dehydrated alcohol, alcohol (95% v/v)USP, 3-Cyclohexene-1-Methanol, α -4-Dimethyl-a-(4-Methyl-3-Pentenyl)-, Steareth-2, Steareth-21, citric acid, CPE-215, diisopropanolamine (1:9), DIPA/PG (1:9), ethoxydiglycol, Potassium hydroxide (10%), PEG-40 Stearate, PEG-7000, Polysorbate 60, potassium hydroxide (1%), propylene carbonate USP, propylene glycol 4, oleyl alcohol, sodium lauryl sulfate, sorbitan monostearate, sorbitan stearate, and 1,2,3-Propanetriyl Ester.
15. The composition of claim 1 further comprising one or more non-solvent/emulsifier ingredients.
16. The composition of claim 14 wherein the non-solvent/emulsifier ingredients comprise one or more of the group consisting of Glyceryl Stearate (and) PEG-100 Stearate, carbopol 980, cyclomethicone NF, glyceryl monostearate, hydroxyethyl cellulose, hydroxypropyl cellulose, isopropyl myristate, methyl paraben NF, mineral oil, oleic acid NF, PEG-100 Stearate, petrolatum, propyl paraben NF, purified water, stearyl alcohol, white petrolatum, and white wax.
17. The composition of claim 1 wherein the solvents and emulsifiers are present at about 4-5%.

18. The composition of claim 15 wherein the non-solvent/emulsifier ingredients are present at about 11% to about 53%.

19. The composition of claim 15 wherein the non-solvent/emulsifier ingredients are present at about 11% to about 27%.

20. A composition comprising about 0.10% fluocinonide, about 74.9% propylene glycol, about 3.0% diisopropyl adipate, about 5.0% isopropyl myristate, about 2.5% 1,2,6 trihydroxyhexane, about 1.0% carbopol 980, about 1.0% diisopropanolamine 85%: propylene glycol (1:9), about 0.01% citric acid, about 2.49% purified water, about 2.5% glyceryl monostearate, and about 7.5% glyceryl monostearate & PEG stearate.

21. A composition comprising about 0.10% fluocinonide, about 70.0% propylene glycol, about 15.0% dimethyl isosorbide, about 1.2% carbopol 980, about 1.2% diisopropanolamine 85%: propylene glycol (1:9), about 0.01% citric acid, about 2.49% purified water, about 2.5% glyceryl monostearate, and about 7.5% glyceryl monostearate & PEG stearate.

22. A composition comprising about 0.10% fluocinonide, about 66.8% propylene glycol, about 5.0% dimethyl isosorbide, about 5.0% isopropyl myristate, about 0.5% carbopol 980, about 0.5% diisopropanolamine 85%: propylene glycol (1:9), about 5.0% white petrolatum USP, about 6.0% glyceryl monostearate, about 6.0% PEG 100 stearate, about 5.0% stearyl alcohol, and about 0.10% sodium lauryl sulfate.

23. A composition comprising about 0.10% fluocinonide, about 69.9% propylene glycol, about 2.0% diisopropyl adipate, about 5.0% isopropyl myristate, about 0.5% carbopol 980, about 0.5% diisopropanolamine 85%: propylene glycol (1:9), about 5.0% white petrolatum USP, about 6.0% glyceryl monostearate, about 6.0% PEG 100 stearate, and about 5.0% stearyl alcohol.

24. A method for enhancing potency of corticosteroids comprising

Combining one or more corticosteroids with two or more penetration enhancers, and one or more of the group consisting of solvents and emulsifiers, wherein the penetration enhancers are present in a ratio to a total of penetration enhancers, and solvents and emulsifiers of at least about 0.70.

25. The method of claim 24 wherein the corticosteroid comprises a fluorinated corticosteroid.
26. The method of claim 24 wherein the corticosteroid comprises fluocinonide.
27. The method of claim 24 wherein the corticosteroid comprises fluocinolone acetone.
28. The method of claim 24, 25, 26 or 27 wherein the corticosteroid is present at about 0.10%.
29. The method of claim 24, 25, 26 or 27 wherein the corticosteroid is present at at least about 0.50%.
30. The method of claim 24, 25, 26 or 27 wherein the corticosteroid is present at at least about 0.25%.
31. The method of claim 24, 25, 26 or 27 wherein the penetration enhancers comprise two or more of the group consisting of propylene glycol, diisopropyl adipate, dimethyl isosorbide, 1,2,6 hexanetriol, and benzyl alcohol.
32. The method of claim 24, 25, 26 or 27 wherein the penetration enhancers comprise two or more of the group consisting of propylene glycol, diisopropyl adipate and dimethyl isosorbide.
33. The method of claim 24, 25, 26 or 27 wherein one penetration enhancer comprises propylene glycol.
34. The method of claim 24 wherein the ratio is at least about 0.80.

35. The method of claim 24 wherein the ratio is at least about 0.90.
36. The method of claim 24 wherein the ratio is at least about 0.95.
37. The method of claim 24 wherein the solvents and emulsifiers comprise one or more of the group consisting of dehydrated alcohol, alcohol (95% v/v) USP, 3-Cyclohexene-1-Methanol, α -4-Dimethyl- α -(4-Methyl-3-Pentenyl)-, Steareth-2, Steareth-21, citric acid, CPE-215, diisopropanolamine (1:9), DIPA/PG (1:9), ethoxydiglycol, Potassium hydroxide (10%), PEG-40 Stearate, PEG-7000, Polysorbate 60, potassium hydroxide (1%), propylene carbonate USP, propylene glycol 4, oleyl alcohol, sodium lauryl sulfate, sorbitan monostearate, sorbitan stearate, and 1,2,3-Propanetriyl Ester.
38. The method of claim 24 wherein the composition further comprises one or more non-solvent/emulsifier ingredients.
39. The method of claim 38 wherein the non-solvent/emulsifier ingredients comprise one or more of the group consisting of Glyceryl Stearate (and) PEG-100 Stearate, carbopol 980, cyclomethicone NF, glyceryl monostearate, hydroxyethyl cellulose, hydroxypropyl cellulose, isopropyl myristate, methyl paraben NF, mineral oil, oleic acid NF, PEG-100 Stearate, petrolatum, propyl paraben NF, purified water, stearyl alcohol, white petrolatum, and white wax.
40. The method of claim 24 wherein the solvents and emulsifiers are present at about 4-5%.
41. The method of claim 39 wherein the non-solvent/emulsifier ingredients are present at about 11% to about 53%.
42. The method of claim 39 wherein the non-solvent/emulsifier ingredients are present at about 11% to about 27%.
43. A method of delivering corticosteroids to skin comprising

Topically applying a composition comprising one or more corticosteroids with two or more penetration enhancers, and one or more of the group consisting of solvents and emulsifiers, wherein the penetration enhancers are present in ratio to a total of the penetration enhancers, and solvents and emulsifiers of at least about 0.70.

44. The method of claim 43 wherein the corticosteroid comprises a fluorinated corticosteroid.
45. The method of claim 43 wherein the corticosteroid comprises fluocinonide.
46. The method of claim 43 wherein the corticosteroid comprises fluocinolone acetoneide.
47. The method of claim 43, 44, 45 or 46 wherein the corticosteroid is present at about 0.10%.
48. The method of claim 43, 44, 45 or 46 wherein the corticosteroid is present at at least about 0.50%.
49. The method of claim 43, 44, 45 or 46 wherein the corticosteroid is present at at least about 0.25%.
50. The method of claim 43, 44, 45 or 46 wherein the penetration enhancers comprise two or more of the group consisting of propylene glycol, diisopropyl adipate dimethyl isosorbide, 1,2,6 hexanetriol, and benzyl alcohol.
51. The method of claim 43, 44, 45 or 46 wherein the penetration enhancers comprise two or more of the group consisting of propylene glycol, diisopropyl adipate and dimethyl isosorbide.
52. The method of claim 43, 44, 45 or 46 wherein one penetration enhancer comprises propylene glycol.

53. The method of claim 43 wherein the ratio is at least about 0.85.
54. The method of claim 43 wherein the ratio is at least about 0.90.
55. The method of claim 43 wherein the solvents and emulsifiers comprise one or more of the group consisting of dehydrated alcohol, alcohol (95% v/v)USP, 3-Cyclohexene-1-Methanol, α -4-Dimethyl- α -(4-Methyl-3-Pentenyl)-, Steareth-2, Steareth-21, citric acid, CPE-215, diisopropanolamine (1:9), DIPA/PG (1:9), ethoxydiglycol, Potassium hydroxide (10%), PEG-40 Stearate, PEG-7000, Polysorbate 60, potassium hydroxide (1%), propylene carbonate USP, propylene glycol 4, oleyl alcohol, sodium lauryl sulfate, sorbitan monostearate, sorbitan stearate, and 1,2,3-Propanetriyl Ester.
56. The method of claim 43 wherein the composition further comprises one or more non-solvent/emulsifier ingredients.
57. The method of claim 56 wherein the non-solvent/emulsifier ingredients comprise one or more of the group consisting of Glyceryl Stearate (and) PEG-100 Stearate, carbopol 980, cyclomethicone NF, glyceryl monostearate, hydroxyethyl cellulose, hydroxypropyl cellulose, isopropyl myristate, methyl paraben NF, mineral oil, oleic acid NF, PEG-100 Stearate, petrolatum, propyl paraben NF, purified water, stearyl alcohol, white petrolatum, and white wax.
58. The method of claim 43 wherein the solvents and emulsifiers are present at about 4-5%.
59. The method of claim 57 wherein the non-solvent/emulsifier ingredients are present at about 11% to about 53%.
60. The method of claim 57 wherein the non-solvent/emulsifier ingredients are present at about 11% to about 27%.